

CLAIMS

1. A method for forming cobalt silicide on a body which has a surface that comprises silicon, the method comprising:
  - forming a cobalt layer on said surface;
  - 5 forming a titanium layer over the cobalt layer by ionized physical vapor deposition;
  - reacting the cobalt with the silicon to form cobalt silicide; and
  - removing the titanium layer, and if any cobalt has not reacted with the silicon then removing the unreacted cobalt;
- 10 wherein the titanium layer is formed by ionized physical vapor deposition.
2. The method of Claim 1 wherein during the deposition of the titanium layer the body is attached to a support biased with an AC power of 0 W.
3. The method of Claim 1 wherein during the titanium layer deposition the distance between the titanium target and the body is at least 140 mm.
- 15 4. The method of Claim 1 wherein the titanium layer is at most 7.5 nm thick.
5. The method of Claim 1 wherein said silicon surface is located at a bottom of an opening having aspect ratio of at least 2.5.
6. The method of Claim 7 wherein at least part of a sidewall surface of the opening is made of a dielectric.